## **Recovery Plan Action Status**

Plan Name: Recovery Plan Palo de Rosa (Ottoschulzia rhodoxylon)

Plan Status: Final Plan Date: 20-Sep-94 Lead Agency: USFWS

Lead Office: Caribbean Ecological Services Field Office 851-7297)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Palo de rosa (Ottoschulzia rhodoxylon)	1	1	Provide protection for privately owner population sites	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural and Environmental Resources	Acquisition: Easement	Internal Administrative	Cost cannot be determined at this time due to possibility of protection through conservation easements and/or landowner agreements
Palo de rosa (Ottoschulzia rhodoxylon)	2	10	Continue to study periodicity of flowering, pollination mechanisms, problems with fruit set, and dispersal mechanisms.	Ongoing Current	FY 2000 - FY 2004	FY 2012	U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources	Research	Contract, Graduate Student	10K/yr includes 321, 322 and 323. Task duration: 2-4 years Eugenio Santiago from the UPRRP is working on the reproductive biology of the species.
Palo de rosa (Ottoschulzia rhodoxylon)	2	11	Continue to evaluate seed viability, longevity and germination requirements	Ongoing Current	FY 2000 - FY 2004	FY 2012	U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources	Research: Propagation	Contract, Graduate Student	Task duration: 2-4 years  Currently been germinated by DNER of Puerto Rico.
Palo de rosa (Ottoschulzia rhodoxylon)	2	12	Continue to evaluate requirements for seedling establishment and growth	Ongoing Current	FY 2000 - FY 2004	FY 2011	U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources, U.S. Army, USFWS Regional Office 4	Research: Propagation	Contract, Graduate Student	Task duration: 2-4 years
Palo de rosa (Ottoschulzia rhodoxylon)	2	13	Conduct studies of population genetics	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, Universities, USFWS Regional Office 4	Research: Taxonomic Studies	Contract, Graduate Student	Task duration: 2-4 years

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Palo de rosa (Ottoschulzia rhodoxylon)	2	14	Assess necessity for artificial propagation	Ongoing Current	FY 2000 - FY 2004	FY 2012	U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural and Environmental Resources	Research: Propagation	Contract, Graduate Student	
Palo de rosa (Ottoschulzia rhodoxylon)	2	15	If determined to be necessary and feasible, incorporate palo de rosa into existing artificial propagation programs	Ongoing Current	FY 2000 - FY 2004	FY 2012	Botanical Gardens, U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources	Other	Internal Technical Assistance	
Palo de rosa (Ottoschulzia rhodoxylon)	2	16	Enhance existing populations or establish new populations	Planned	FY 2010	FY 2011	U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources	Management: Reintroduction	Contract, Graduate Student, Internal Technical Assistance	The Service is planing to enhance the population at Fort Buchanan and to establish a new population at the Guajataca Forest.
Palo de rosa (Ottoschulzia rhodoxylon)	2	17	Determine number of individuals and populations necessary to ensure species' stability and self- perpetuation	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources	Research: Demographic Studies	Contract, Graduate Student, Internal Technical Assistance	
Palo de rosa (Ottoschulzia rhodoxylon)	2	18	Determine what additional actions, if any, are necessary to achieve recovery goals	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources	Other	Internal Technical Assistance	
Palo de rosa (Ottoschulzia rhodoxylon)	1	2	Develop management plans for the Guanica, Susua Maricao and Cambalache Commonwealth Forests.	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural and Environmental Resources	Management	Internal Administrative, Internal Technical Assistance	No cost anticipated. Task duration: 2-4 years

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Palo de rosa (Ottoschulzia rhodoxylon)	1	3	Incorporate, in cooperation with the U.S. Army, into Fort Buchanan's existing land use management plan provisions for protection of palo de rosa	Complete	FY 2005	FY 2005	U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural and Environmental Resources, U.S. Army	Work type not yet selected	Labor type not yet selected	No cost anticipated. Responsible Parties: ARMY - Fort Buchanan
Palo de rosa (Ottoschulzia rhodoxylon)	1	4	Continue to monitor known populations.	Ongoing Current	FY 2000 - FY 2004	FY 2012	U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources	Research: Population Surveys	Contract, Graduate Student	The Service continue monitoring the known populations.
Palo de rosa (Ottoschulzia rhodoxylon)	1	5	Enforce existing Federal and Commonwealth endangered species regulations	Ongoing Current	FY 1995 - FY 1999	FY 2012	U.S. Fish and Wildlife Service, Law Enforcement Division, U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural and Environmental Resources	Other: Law Enforcement	Internal Technical Assistance	One DNER ranger half-time
Palo de rosa (Ottoschulzia rhodoxylon)	2	6	Incorporate Ottoschulzia rhodoxylon into existing education programs	Ongoing Current	Prior to FY 1995	FY 2012	U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural and Environmental Resources	Other: Information and Education	Internal Technical Assistance	
Palo de rosa (Ottoschulzia rhodoxylon)	2	7	Identify and inventory potential sites	Ongoing Not Current		FY 2012	U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources	Research: Habitat Requirements, Research: Habitat Status, Research: Management Techniques, Research: Population Surveys, Research: Reintroduction	Contract, Graduate Student	Task duration: 2-4 years

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Palo de rosa (Ottoschulzia rhodoxylon)	2	8	Characterize sites to determine their suitability as future recovery sites	Ongoing Current	FY 2009		U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources	Reintroduction	Contract, Graduate Student	Task duration: 2-4 years
Palo de rosa (Ottoschulzia rhodoxylon)	2	9	Continue to define habitat requirements	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources	Requirements	Contract, Graduate Student	